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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/657,255	09/07/2000	Richard K. Sita	ATTI000141	1505

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EXAMINER	
TRUJILLO, JAMES K	
ART UNIT	**PAPER NUMBER**
2116	9

DATE MAILED: 08/05/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No.	Applicant(s)
	09/657,255	SITA ET AL.
	Examiner	Art Unit
	James K. Trujillo	2116

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *03 May 2004*.

2a)☐ This action is **FINAL**. 2b)☒ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *1-17,19,20 and 22-24* is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☒ Claim(s) *13-17,19,20 and 22-24* is/are allowed.

6)☒ Claim(s) *1-6,9,10,12 and 13* is/are rejected.

7)☒ Claim(s) *7-8 and 11* is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☒ The drawing(s) filed on *07 September 2000* is/are: a)☒ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☐ All b)☐ Some * c)☐ None of:

1.☐ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☒ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) Paper No(s)/Mail Date _____.
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____.
5) ☐ Notice of Informal Patent Application (PTO-152)
6) ☐ Other: _____.

DETAILED ACTION

1. The office acknowledges the receipt of the following and placed of record in the file: Amendment B dated 5/3/04.

2. Claims 1-17, 19-20 and 22-24 are presented for examination. Applicants have canceled claim 21.

3. Applicant's arguments, see page 8 lines second paragraph, filed 14 May 2004, with respect to the rejection(s)of claim(s) 1-17, 19-20 and 22-24 under 35 USC 102(e) have been fully considered and are persuasive. Therefore, the rejection has been withdrawn. However, upon further consideration, a new ground(s) of rejection is made with respect to claims 1-6 and 9-10 in view of newly found prior art.

4. Applicant's arguments with respect to claims 1-6 and 9-10 have been considered but are moot in view of the new ground(s) of rejection.

Claim Rejections - 35 USC § 102

5. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

> A person shall be entitled to a patent unless –
>
> (e) the invention was described in a patent granted on an application for patent by another filed in the United States before the invention thereof by the applicant for patent, or on an international application by another who has fulfilled the requirements of paragraphs (1), (2), and (4) of section 371(c) of this title before the invention thereof by the applicant for patent.

The changes made to 35 U.S.C. 102(e) by the American Inventors Protection Act of 1999 (AIPA) and the Intellectual Property and High Technology Technical Amendments Act of 2002 do not apply when the reference is a U.S. patent resulting directly or indirectly from an

international application filed before November 29, 2000. Therefore, the prior art date of the reference is determined under 35 U.S.C. 102(e) prior to the amendment by the AIPA (pre-AIPA 35 U.S.C. 102(e)).

6. Claims 1-5 and 9 are rejected under 35 U.S.C. 102(e) as being anticipated by Bandai et al., U.S. Patent 6,081,145 (hereinafter "Bandai").

7. As to claim 1, Bandai taught a method comprising the steps of:

a. receiving a first clock signal (at clock input end portion 6 of functional bl3ock 3b) [figures 1, 5, 9, 12 and col. 4 lines 12-24];

b. providing a distributed clock signal to a clock distribution network (from clock signal f_o) having a plurality of endpoints (load circuits 8 in functional blocks 3a, 3c and 3d) connected to a respective plurality of components [figures 1, 5, 9, 12 and col. 4 lines 1-7]; and

c. modifying the distributed clock signal (using DLL 5) until a portion of the distributed clock signal received at a first end point (at clock input end portion 6 of functional block 3a) of the plurality of endpoints (clock input end portions 6 of functional blocks 3a, 3c and 3d) is substantially synchronized to the first clock (skew is removed with respect to the clock signal input at functional blocks) [col. 5 lines 6-47 and figure 5]. Specifically in figure 5, Bandai discloses that clock signal at node 9 (shown below) is input to DLLs at each of the corresponding functional blocks. The DLLs use the signals at node 9 for each functional block to remove any phase differences between the reference clock and the terminal clocks inputted at the functional blocks and substantially synchronized (coincident with each other) [col. 5 lines 6-13].

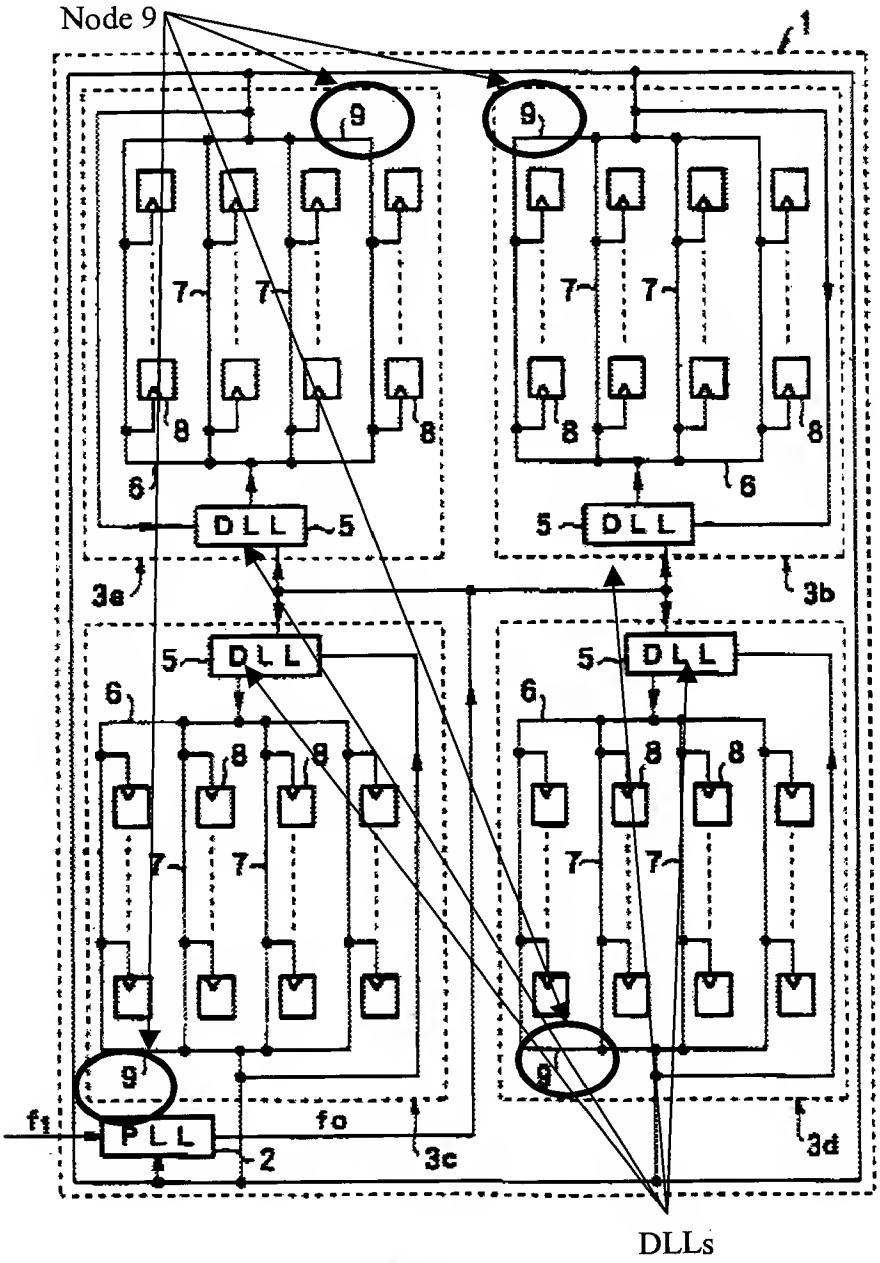

FIG. 5

8. As to claim 2, Bandai taught the method according to claim 1 as described above. Bandai further taught wherein the step of modifying includes providing a delay (delayed by a DLL) representation of the distributed clock signal at the first end point [figures 1, 2, 5, 9, 12 and col. 4 lines 12-46].

9. As to claim 3, Bandai taught the method according to claim 2 as described above. Bandai further taught wherein the step of modifying includes using a delay locked loop (DLL) to modify the distributed clock signal [figures 1, 2, 5, 9, 12 and col. 4 lines 12-46].

10. As to claim 4, Bandai taught the method according to claim 3 as described above. Bandai further taught wherein the first endpoint is at the same propagation level as a second endpoint (embodiment using endpoints memory block 45 are at the same propagation level of the endpoints in 43) of the clock distribution network (the endpoints all receive the clock following the DLL), where the second endpoint drives a component (RAM 46) that is not part of the clock distribution network and the first endpoint drives an input to the delay locked loop [figures 1, 5, 6 and col. 5 line 48 through col. 6 line 55].

11. As to claim 5, Bandai taught the method according to claim 4 as described above. Bandai further taught the steps of providing a second clock signal (clock signal f_{90}) from a first device (PLL) wherein the first clock signal is a delayed representation of the second clock signal (delayed by the DLL) [figures 9, 10 and col. 7 lines 10-31].

12. As to claim 9, Bandai taught the method according to claim 3 as described above. Bandai further taught the steps of providing a second clock signal (clock signal f_{90}) from a first device (PLL) wherein the first clock signal is a delayed representation of the second clock signal (delayed by the DLL) [figures 9, 10, 12, col. 7 lines 10-31 and col. 8 lines 56-62].

Claim Rejections - 35 USC § 103

13. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

14. Claims 6 and 10 are rejected under 35 U.S.C. 103(a) as being unpatentable over Bandai.

15. As to claims 6 and 10, Bandai taught the method according to claims 5 and 9 respectively as described above. Bandai does not expressly disclose wherein the step of providing the second clock signal to a propagation path manufactured onto a first substrate, wherein the first substrate is not part of the first device. However, Bandai clearly suggest (as in fig. 12) that the PLL providing the second clock signal may be external to the clock signal path on integrated circuit 1. This would suggest to one of ordinary skill in the art at the time of the invention that the providing the second clock signal on a manufactured first substrate (on integrated circuit 1) would not be part of the first device (PLL) because it is not located on the integrated circuit. Therefore, it would have been obvious to one of ordinary skill in the art to modify Bandai by providing the second clock signal to a propagation path on a first substrate that is not part of the first device. One of ordinary skill would do so because it would reduce the size of the integrated circuit devices.

Allowable Subject Matter

16. Claims 13-17, 19-20 and 22-24 are allowed.

17. Claims 7-8 and 11 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

Conclusion

Any inquiry concerning this communication or earlier communications from the examiner should be directed to James K. Trujillo whose telephone number is (703) 308-6291. The examiner can normally be reached on M-F (7:30 am - 5:00 pm) First Friday Off.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Lynne Browne can be reached on (703)308-1159. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

James Trujillo
July 9, 2004

LYNNE H. BROWNE
SUPERVISORY PATENT EXAMINER
TECHNOLOGY CENTER ~~3600~~ 2100